

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Andres Altmann et al. Confirmation No.: 8493  
Appln. No. : 10/785,162  
Filed : February 23, 2004  
Title : ROBOTICALLY GUIDED CATHETER  
  
Art Unit : 3737  
Examiner : Crystal I. Leach

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January <sup>15</sup>~~14~~th, 2009  
(Date of Transmission)

Paul J. Esatto, Jr.  
(Name of applicant, assignee, or Registered Representative)

  
(Signature)

January <sup>15</sup>~~14~~th, 2009  
(Date of Signature)

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR §1.132**

Sir:

City of: Haifa

Country of: Israel

I, Andres Altmann declare, depose and state:

1. I am one of the inventors of all the claims (1-45) of the above-identified patent application.

2. I hold a Bachelor of Science (B.S.) Degree in Electrical Engineering from the Technion, Israel Institute of Technology which I received in 1996 and a *Master of*



*Science (MS) Degree* in Biomedical Engineering from the Technion, Israel Institute of Technology which I received in 2005. I hold the position as advanced R&D group manager at Biosense Webster Israel at Biosense Webster, Inc. and have held this position since 2008. Prior to my current position, I was project manager in the advanced R&D group in Israel at Biosense Webster, Inc. from July 2001 –Jan. 2008. A true and correct copy of my *curriculum vitae* is attached hereto as **Exhibit A** of this Declaration.

3. I have been asked by counsel for Biosense Webster, Inc. to review the October 15, 2008 final Office Action issued in connection with the above-identified patent application as well as all the references cited therein.

4. I submit this declaration for the purpose of clarifying the distinction between a robot and a servomechanism employed by surgical devices such as steerable catheters. It is evident from the above referenced final Office Action that the Examiner fails to appreciate the distinction between a servomechanism and a robot. For example, on page 3, paragraph number 6, the Examiner erroneously believes that U.S. Patent No. 5,808,665 issued to Green ("Green") discloses a servomechanism that provides robotic movement.

5. A servomechanism is an automatic device employing an error-sensing feedback to an operator to allow an operator to correct the performance of a mechanism based upon a received feedback. A robot, on the other hand, is an artificial agent typically an electro-mechanical system which, by its appearance or movements, conveys a sense that it has intent or agency of its own. In Green's servomechanism, feedback such as force and torque are sensed by the manipulator (Col. 5, lines 24-28) allowing a surgeon to better feel and control the movement of a surgical instrument. In other words, Green's servomechanism does not convey a sense that it has intent or agency of its own – just a sense of movement related to an operator.

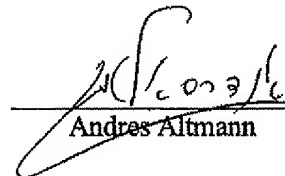
6. The robot of our invention is a robot by virtue of the fact that it employs a controller adapted to drive the distal tip of a steerable catheter to a desired position based

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a received position signal indicative of six dimensions of location and orientation information by manipulating a thumb control as recited in Claim 1. Consequently, the present invention's controller, not the operator, is the principle driving the present invention's distal tip.

7. U.S. Patent Pub. No. 2004/0254566 applied for by Plicchi et al. ("Plicchi") and U.S. Patent No. 5,417,210 issued to Funda et al. ("Funda") disclose similar servomechanisms to that disclosed in Green. Plicchi employs a servo-control to steer a catheter by way of several rollers shown in FIG. 2A, reference characters 5 and 105 and described on page 3, [0027](see also Claim 1, third and fourth element). Although Plicchi mentions the use of a robot several times in its disclosure -- the reference to a robot is limited to describing the feeding of the catheter into the body, which is characterized as "a robotized movement system" (page 2, paragraph [0026]). With respect to Funda, that reference merely discloses a "force-sensing device" mounted on a surgical instrument (Col. 6, lines 43-46, Claim 4, preamble). In other words, Funda also discloses the use of a servomechanism and not a robot.

I declare and certify by my signature below that all statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true. I am aware that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the application or any patents issuing thereon.



Andres Altmann

Date: January 14th, 2009